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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,093	02/27/2004	Todd Holverson	ITW 12843.60	7700
23721	7590	01/26/2005	EXAMINER	
CORRIGAN LAW OFFICE 5 BRIARCLIFF CT APPLETON, WI 54915			SHAW, CLIFFORD C	
			ART UNIT	PAPER NUMBER
			1725	

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/789,093

Applicant(s)

HOLVERSON ET AL.

Examiner

Clifford C Shaw

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31, 39-44, 46-74 and 79-82 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 80-82 is/are allowed.
- 6) ☒ Claim(s) 1-31, 39-44, 46-74 and 79 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 0615.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

Art Unit: 1725

### **Detailed Action**

1.) The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2.) Claims 1-31, 39-44, 46-74, and 79 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-67 of U.S. Patent No. 6,723,957. Although the conflicting claims are not identical, they are not patentably distinct from each other because the application claims are of broader scope than the patented claims and are therefore obvious over the patented claims.

3.) The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 1725

4.) Claims 29, 39, 40, 59 and 79 are rejected under 35 U.S.C. 102(b) as being anticipated by Mita et al. (5,225,660). Columns 9 and 10 and especially table 2 in Mita et al. (5,225,660) clearly disclose the subject matter claimed.

5.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6.) Claims 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiraoka et al. (2001/0047988). Figure 2 and the discussion thereof in Hiraoka et al. discloses an arrangement for narrow groove welding using MIG with an alternating current. The claims differ from Hiraoka et al. in calling for particular groove angles. This difference does not patentably distinguish over the prior art. It would have been obvious to have practiced the method taught by Hiraoka et al. with any steep groove angles, including those claimed, the motivation being to secure the advantages of the system of Hiraoka et al. for a particular workpiece.

7.) Claims 30, 31, 41-44, 60-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mita et al. (5,225,660) taken with Woodacre (4,092,517). It would have been obvious to have used an initially negative start period as claimed for the system of Mita et al. (5,225,660),

Art Unit: 1725

the motivation being the teachings of Woodacre that such is advantageous for a pulsating a.c. power supply (see figures 3a – 3g in Woodacre and the discussion thereof).

8.) Claims 65-67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mita et al. (5,225,660) taken with Ogasawara et al. (5,990,445, cited by applicant). The patent to Mita et al. (5,225,660) discloses MIG welding with alternating current wherein the negative portion of the cycle is longer than the positive portion and wherein either a cored or solid wire is used (see columns 9 and 10 in Mita et al. (5,225,660)). The claims differ from Mita et al. (5,225,660) in calling for particular current frequencies. These differences do not patentably distinguish over the prior art. The patent to Ogasawara et al. (5,990,445) teaches that there is a relationship between pulse frequency and wire feed rate when welding with a pulsating alternating current (see figure 7 and the discussion thereof in Ogasawara et al. (5,990,445)). It would have been obvious to have adjusted the frequency in Mita et al. (5,225,660) depending on the desired wire feed rate, the motivation being the teachings of Ogasawara et al. (5,990,445) that there is a relationship between these two parameters. These adjustments could obviously have led to the frequencies claimed, depending on the requirements of a particular welding situation.

9.) Claims 24-26 71-73 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mita et al. (5,225,660) taken with Ogasawara et al. (5,990,445) as applied above and further in view of Hiraoka et al.. It would have been obvious to have used the arrangement of Mita et al. (5,225,660) to weld in a narrow groove in view of the teachings of Hiraoka et al. that it is

Art Unit: 1725

advantageous to weld in a narrow groove using MIG and pulsating a.c. The particular angles are considered obvious over the combination as discussed above.

10.) Claims 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mita et al. (5,225,660) taken with Ogasawara et al. (5,990,445) as applied above, and further in view of Woodacre (4,092,517). It would have been obvious to have used an initially negative start period for the system of Mita et al. (5,225,660), the motivation being the teachings of Woodacre that such is advantageous for a pulsating a.c. power supply (see figures 3a – 3g in Woodacre and the discussion thereof).

11.) Claims 80-82 are allowable over the prior art of record. None of the prior art of record teaches or suggests controlling dilution in the manner claimed.

Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1725

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clifford C Shaw  
Primary Examiner  
Art Unit 1725

January 24, 2005